

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough; and 2. added matter is shown by underlining.

1-22. (Cancelled).

Please add new claims 23-47 as follows:

23. (New) A laser treatment apparatus for ophthalmic surgery, comprising:

a headrest for a patient;

a contact glass, which can be placed onto an eye of the patient and through which a treatment laser beam is incident; and

a safety mechanism which moves the headrest and the contact glass apart when a force is directed onto the contact glass substantially counter to the direction of incidence of the laser beam;

wherein the safety mechanism enables separating movement only at a force exceeding a limit value of force and substantially fixes the headrest and the contact glass relative to each other if said force is below the limit value of force.

24. (New) The laser treatment apparatus as claimed in claim 23, wherein the safety mechanism retracts the contact glass.

25. (New) The laser treatment apparatus as claimed in claim 23, wherein the limit value of force is caused by at least one of the following: elastic force and weight force.

26. (New) The laser treatment apparatus as claimed in claim 23, wherein the contact glass is mounted to a holding element which is pressed against a stop of the housing with a force defining the limit value of force.

27. (New) The laser treatment apparatus as claimed in claim 26, wherein the holding element further comprises focusing optics, which focus the treatment laser beam into or onto the eye.

28. (New) The laser treatment apparatus as claimed in claim 23, wherein the limit value of force is about one Newton.

29. (New) A laser treatment apparatus for ophthalmic surgery, comprising

- a headrest for a patient;
- a beam-deflecting unit which variably deflects the treatment laser beam about at least one axis of deflection;

- focusing optics arranged following the beam-deflecting unit, said optics focusing the laser beam along an optical axis into or onto an eye of the patient;
- a contact glass, which can be placed on the eye and is arranged following the focusing optics, and
- a safety mechanism which moves the headrest and the contact glass apart when a force is directed onto the contact glass generally counter to the direction of incidence of the laser beam;

wherein

- the beam-deflecting unit is arranged substantially in an entrance pupil of the focusing optics at least with respect to a deflecting element acting for said one axis of deflection, and
- the safety mechanism couples the contact glass, the focusing optics and the deflecting element such that, when moving apart, the deflecting element remains substantially in the entrance pupil and the length of the light path between the deflecting element and the contact glass is substantially constant.

30. (New) The laser treatment apparatus as claimed in claim 29, wherein the safety mechanism retracts the contact glass.

31. (New) The laser treatment apparatus as claimed in claim 30, wherein the contact glass, the focusing optics and the deflecting element are substantially rigidly connected to form a unit and the safety mechanism comprises a generally longitudinal guide of the unit.

32. (New) Laser treatment apparatus as claimed in claim 30, wherein the light path of the laser beam following the entrance pupil of the focusing optics is folded at least once and the safety mechanism causes a joint rotary movement or pivotal movement of the contact glass, the focusing optics and the deflecting element during retraction.

33. (New) The laser treatment apparatus as claimed in claim 32, wherein the contact glass, the focusing optics and the deflecting element are substantially rigidly connected to form an arm and the safety mechanism comprises a rotary support for the arm with the axes of rotation lying generally in a plane of the entrance pupil.

34. (New) The laser treatment apparatus as claimed in claim 30, wherein the safety mechanism comprises a weight force compensating unit, selected from a group consisting of a counterweight and a spring element.

35. (New) The laser treatment apparatus as claimed in claim 34, wherein the safety mechanism enables separating movement only at a force exceeding a limit value of force and substantially fixes the headrest and the contact glass relative to each other if said force is below the limit value of force; and

wherein the weight force compensating unit sets the limit value of force.

36. (New) The laser treatment apparatus as claimed in claim 33, wherein the safety mechanism enables separating movement only at a force exceeding a limit value of force and substantially fixes the headrest and the contact glass relative to each other if said force is below the limit value of force; and

wherein the arm is supported at the housing of the laser treatment apparatus at the limit value of force.

37. (New) The laser treatment apparatus as claimed in claim 29, further comprising a supporting unit, which comprises a support which can be placed in contact with the patient's body and which is coupled to the safety mechanism such that a certain force acting on the support substantially counter to the direction of incidence of the laser beam also causes said separating movement.

38. (New) The laser treatment apparatus as claimed claim 29, further comprising a bed, which is movable substantially along the direction of incidence of the laser beam and which is coupled to the headrest, and wherein the safety mechanism moves the bed.

39. (New) A laser treatment apparatus for ophthalmic surgery, comprising:
a contact glass, which can be placed on an eye and through which a treatment laser beam is incident, and a safety mechanism holding the contact glass moveable such that it retracts when a force is directed onto the contact glass generally counter to the direction of incidence of the laser beam,

wherein the safety mechanism comprises a detecting unit which monitors retraction of the contact glass and interrupts laser treatment operation of the laser treatment apparatus if movement of the contact glass exceeds a threshold value.

40. (New) The laser treatment apparatus as claimed in claim 39, wherein the safety mechanism comprises a drive for actively moving the contact glass and the eye apart, and a control unit controls the drive so as to actively effect separating movement in case of a force exceeding the limit value of force or of a contact glass movement exceeding a threshold value.

41. (New) The laser treatment apparatus as claimed in claim 40, wherein the drive effects a pivotal or rotary movement.

42. (New) The laser treatment apparatus as claimed in claim 40, wherein the drive rotates the arm.

43. (New) The laser treatment apparatus as claimed in claim 39, wherein the detecting unit detects a pressure on the support.

44. (New) The laser treatment apparatus as claimed in claim 39, wherein the safety mechanism additionally lowers the bed in case of the contact glass movement exceeding the threshold value.

45. (New) The laser treatment apparatus as claimed claim 23, further comprising a bed, which is movable substantially along the direction of incidence of the laser beam and which is coupled to the headrest, wherein the safety mechanism moves the bed.

46. (New) The laser treatment apparatus as claimed in claim 23, wherein the safety mechanism comprises a drive for actively moving the contact glass and the eye apart, and a control unit controls the drive so as to actively effect separating movement in case of a force exceeding the limit value of force or of a contact glass movement exceeding a threshold value.

47. (New) The laser treatment apparatus as claimed in claim 29, wherein the safety mechanism comprises a drive for actively moving the contact glass and the eye apart, and a control unit controls the drive so as to actively effect separating movement in case of a force exceeding the limit value of force or of a contact glass movement exceeding a threshold value.